

What Is Claimed Is:

1. A method for removal of a selected portion of a therapeutic coating from a coated generally tubular medical device, comprising the steps of:
rotating the medical device relative to a coating removal laser; and
ablating the selected portion of the coating from the rotating medical device with the laser.

2. The selective coating removal method of claim 1, wherein
the laser is controlled by a laser controller to distribute light energy over the selected portion, and
an amount of light energy distributed by the laser is sufficient to ablate the selected portion of the coating from the medical device.

3. The selective coating removal method of claim 2, wherein
the rotation of the medical device relative to the laser is controlled by a motion controller, and
the laser controller cooperates with the motion controller to control the laser to distribute light energy on the selected portion of the coating.

4. The selective coating removal method of claim 3, wherein
the laser controller controls the laser in accordance with a predetermined pattern as the medical device is rotated relative to the laser.

5. The selective coating removal method of claim 4, wherein the selected portion comprises a plurality of coating sections on the medical device.

6. The selective coating removal method of claim 5, wherein the selected portion comprises at least one circular coating section.

7. The selective coating removal method of claim 4, wherein the medical device is a stent.

8. The selective coating removal method of claim 4, further comprising:
a pattern recognition system which detects stent strut position relative to the laser,
wherein

at least one of the stent strut position relative to the laser and the laser light
distribution is altered in response to the detected stent strut position relative to the laser to
improve ablation accuracy.

9. The selective coating removal method of claim 3, further comprising the step of:
determining an amount of coating on the medical device prior to selective coating
removal,

wherein the selected portion of the coating to be removed is a portion of the coating
sufficient to reduce the amount of coating on the medical device to a target amount of
coating.

10. The selective coating removal method of claim 9, wherein
the target amount of coating is a target weight of coating, and
the step of determining the amount of the coating on the medical device prior to
selective coating removal comprises subtracting a weight of the medical device from the
weight of the coated medical device.

11. The selective coating removal method of claim 10, wherein the selected portion is
at least one circular coating section.

12. The selective coating removal method of claim 11, wherein the medical device is
a stent.

13. A selective coating removal apparatus for removal of a selected portion of a
coating from a coated medical device, comprising:

a medical device rotator; and
a laser,

wherein the laser ablates the selected portion of the coating from the medical device
as the medical device is rotated by the rotator.

14. The selective coating removal apparatus of claim 12, further comprising:
a laser controller, wherein
the laser controller causes the laser to distribute light energy over the selected portion,
and
an amount of light energy distributed by the laser is sufficient to ablate the selected
portion of the coating from the medical device.

15. The selective coating removal apparatus of claim 14, further comprising:
a motion controller, wherein
the motion controller controls the rotation of the medical device relative to the laser,
and
the laser controller cooperates with the motion controller to control the laser to
distribute light energy on the selected portion of the coating.

16. The selective coating removal apparatus of claim 15, wherein the selected portion
comprises a plurality of coating sections on the medical device.

17. The selective coating removal method of claim 16, wherein the selected portion
comprises at least one circular coating section.

18. The selective coating removal apparatus of claim 15, wherein the medical device
is a stent.

19. The selective coating removal apparatus of claim 15, wherein the selected portion
of the coating to be removed is a portion of the coating sufficient to reduce the amount of
coating on the medical device to a target amount of coating.

20. The selective coating removal apparatus of claim 19, wherein
the target amount of coating is a target weight of coating.

21. The selective coating removal method of claim 20, wherein the selected portion is
at least one circular coating section.

22. The selective coating removal method of claim 21, wherein the medical device is a stent.